



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: 300 M STREET, N.E. PATENTS AND TRADEMARKS
WASHINGTON, D.C. 20530
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09 205,297	12 04 1998	GEORGE N. VALKANAS	2577-106P	7933
------------	------------	--------------------	-----------	------

2292 7590 04 24 2002

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

CINTINS, IVARS C

ART UNIT	PAPER NUMBER
----------	--------------

1724

21

DATE MAILED: 04 24 2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/205,297

Applicant(s)
Valkanas et al.

Examiner
Ivars Cintins

Art Unit
1724



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Feb 6, 2002 & Feb 14, 2002

2a) This action is **FINAL**. 2b) ☒ This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 27-47 is/are pending in the application.

4a) Of the above, claim(s) 29 and 36-47 is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 27, 28, and 30-35 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are objected to by the Examiner.

11) The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s).

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s).

20) ☐ Other:

Art Unit: 1724

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 27, 28, 30-32 and 35 are again rejected under 35 U.S.C. 102(b) as being clearly anticipated by Meitzner et al or Vulliez-Sermet et al. As pointed out in the previous Office Action, each of these references appears to disclose a product having all of the recited product limitations, and this is all that is required by product claims 27, 28, 30-32 and 35. Applicant should again note that the manner in which a product is prepared (claims 30-32 and 35) is not a product limitation, and hence cannot be relied upon to patentably distinguish a product claim from a reference which discloses an otherwise identical product.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the

Art Unit: 1724

art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 27, 28, 30-32 and 35 are rejected under 35

U.S.C. 103(a) as being unpatentable over Meitzner et al or Vulliez-Sermet et al. Should it be held that the manner in which the reference polymers are crosslinked affects their product properties, then it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ 1,4-dichloromethyl-2,5-dimethylbenzene as the crosslinking agent in either of the above noted references, since this material is a well known crosslinking agent. Since Applicant has failed to challenge the statement that 1,4-dichloromethyl-2,5-dimethylbenzene is a known crosslinking agent, it appears that this assertion has been conceded.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meitzner et al or Vulliez-Sermet et al, particularly in view of Hous et al (U.S. Patent No. 5,075,387). Each of the primary references discloses the claimed invention with the exception of the molecular weight between crosslinks (i.e. Mc) in the polymer product. However, the exact Mc value of either reference polymer is deemed to be an obvious matter of choice, insufficient to patentably distinguish this claim, particularly in view of the teaching by Hous et al (see col. 4,

Art Unit: 1724

line 30) that polymers having Mc values between 20,000 and 100,000 are known.

Claim 34 is again rejected under 35 U.S.C. 103(a) as being unpatentable over Vulliez-Sermet et al, in view of Schwarz et al. Vulliez-Sermet et al discloses the claimed invention with the exception of the specific polymer material employed. Schwarz et al discloses (col. 2, lines 20 and 41-42) that SEBS is a well known polymer material; and it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the SEBS of Schwarz et al for the polymer in Vulliez-Sermet et al, since this secondary reference SEBS is capable of functioning in the system of the primary reference in substantially the same manner as the polymer disclosed therein, to produce substantially the same results. Such substitution is deemed to be especially obvious in view of the teaching by Vulliez-Sermet et al that the disclosed polymer can be formed from ethylene, isobutylene and/or styrene monomers (see col. 3, lines 14-16 and 25-26).

Applicant's arguments filed February 6, 2002, and the declarations submitted February 14, 2002, have been noted and carefully considered. In view of the Kilimiris declaration, and Applicant's corresponding arguments, it appears that the terms "macroplegmatic" and "macroreticular" describe the same type of

Art Unit: 1724

polymer structure; and therefore, the new matter objection and rejection contained in the previous Office action have been withdrawn.

Applicant has also presented arguments, and a declaration by Mr. Ioannis Konstantakopoulos, in an attempt to show that the concurrent polymerization and crosslinking reactions of the primary references would not give an Mc of about 50,000. Initially, it should be noted that this argument only applies to claim 33, since none of the other claims in this application require such a molecular weight between crosslinks value. In any event, Hous et al clearly teaches (see col. 4, line 30) that polymers having Mc values between 20,000 and 100,000 are known; and given this teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to crosslink the polymers of either Meitzner et al or Vulliez-Sermet et al to an Mc value of 50,000, since this value is clearly encompassed by the range disclosed in this secondary reference.

Applicant also argues that it would not have been obvious to substitute the SEBS polymer of Schwarz et al for the polymer in any of the primary references, because the primary references teach a product which is useful in a different field of endeavor than that of Schwarz et al. This argument has been noted and carefully considered, but is not deemed to be persuasive of

Art Unit: 1724

patentability. It is pointed out that Vulliez-Sermet et al clearly discloses forming a polymer from ethylene, isobutylene and/or styrene monomers (see col. 3, lines 14-16 and 25-26); and given this teaching, one of ordinary skill in the polymer art would have been motivated to employ the SEBS (i.e. styrene-ethylene-butylene-styrene) copolymer of Schwarz et al in the system of Vulliez-Sermet et al, since this copolymer is formed from all of the monomers contemplated for use in the primary reference system.

Gabrick (U.S. Patent No. 4,941,978) discloses removing oil from water with a block copolymer of styrene, ethylene and butylene (see col. 2, lines 17-20).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to I. Cintins whose telephone number is (703) 308-3840. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

The fax phone numbers for this art unit are: (703) 872-9311 for "Official" faxes after Final Rejection; (703) 872-9310 for all other "Official" faxes; and (703) 872-9492 for "Draft" and other "Unofficial" faxes.

Serial Number: 09/205,297

Page 7

Art Unit: 1724

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Ivars C. Cintins
Ivars C. Cintins
Primary Examiner
Art Unit 1724

I. Cintins
April 21, 2002